NDEP Draft Guidelines for Discovery Events

Issues relating to required notification under NAC 445A.345 to 445A.348

Purpose: Solicitation of feedback from the regulated community on the NDEP's initial positions for when the discovery of soil contamination and groundwater contamination should generate a release report to the NDEP release hotline. Positions will be detailed later in published guidelines.

INTRODUCTION

NDEP Release Reporting

- Release notification required in accordance with NAC 445A.345 to 445A.348 as amended by R125-07
- Focus of presentation and guidelines will be on the nexus between release reporting for soil and groundwater contamination and BCA corrective action case generation for soil and groundwater cleanup

Two Types of Releases

Contemporaneous Releases

A release that occurs in real-time and is observable or measureable such that a reporting determination can be made based on the volume or quantity of the hazardous substance released. Determining whether a contemporaneous release is reportable is usually clear- cut and will not be the focus of guidelines.

Discovery Events

A historic, or otherwise unobserved, release that can be inferred to have occurred based on the discovery of contaminated soil or groundwater. Reporting determinations are based on the magnitude and extent of discovered contamination.

Target Audience of Guidelines

- Releases are required to be reported by facility owners and operators or by their designated agent.
- Guidelines will be written so that they can be understood by facility owners but will be targeted to the more technical audience: CEMs.
- When published, the guidelines should be understood by all CEMs as a standard of practice.
- Questions pulled from scenarios and issues in the guidelines will be incorporated in CEM examinations.

Topics

Discovery Events

- What is a discovery event?
- Existing Open/Closed Cases
- Off-site Sources
- Solid Waste
- Abandoned Containers
- Underground Storage Tanks

Reporting Determinations

- Reportable Triggers
- Screening Levels
- Background
- Anthropomorphic Background
- Common Lab Contaminants
- Multiple Releases
- Volume Determinations

CEM Responsibilities

Report of Findings

Timing of Notification

Report of Immanent Threats

DISCOVERY EVENTS

What is a Discovery Event

- Any event that uncovers or brings soil or groundwater contamination to the attention of a facility owner/operator is a discovery event, though it does not become reportable until it exceeds reportable triggers.
- The most common discovery events include Phase II Environmental Site Assessments, large excavation projects, and agency inspections.

Existing Open/Closed Cases

- There are mechanisms that allow the BCA to close a case with contamination remaining in place, which leaves this contamination available for re-discovery.
- Contamination that has been left in place should not be reported to the Division upon re-discovery under the following conditions:
  - The present condition of the contamination (extent, magnitude, depth, etc.) is roughly equivalent to the conditions which the BCA provided closure on initially.
  - Site use assumptions which were used to develop action levels and cleanup plans have not changed and are not likely to change in the near future.
- If the contamination is discovered to be inconsistent with initial closure conditions for any reason, the discovery should generate a new release report.
- At sites with open cases, if another release is discovered that is distinct from the release that is the focus of the open case, a separate spill report should be made. If the discovered contamination is just an extension of the release being addressed through the open case, the information should be provided to the existing case officer but will not generate a separate spill report.

Off-site Sources

- The reporting regulations make no distinctions regarding the source of discovered contamination.
- Contamination above reportable triggers should be reported when discovered on or below a facility regardless of whether that contamination is from an off-site source since that release still "involves" the facility
- Innocent land owner defenses are dependent on a facility owner/operator making all necessary notifications and providing cooperation with regulating agencies.
- The reporting of contamination from off-site sources assists the NDEP in discovering contaminant releases that need to be addressed, potentially through the identification of an upgradient responsible party.
- The NDEP is still examining its policies and procedures on third-party liability, but in the absence of these policies facilities are still covered by liability relief statutes
- The only exceptions will be discussed in the section dealing with anthropomorphic background.

Solid Waste

- Solid waste is not automatically considered a hazardous substance under the reporting regulations.
- Due to the commingled nature of some solid waste streams, however, the discovery of improperly dumped solid waste should be examined to determine whether there is a hazardous substance component that would require reporting.
- Construction debris will not be considered a hazardous substance even with the presence of asphalt.
- When discovered, solid waste on private property with no hazardous substance component and no hazardous waste determination can be dealt with through disposal at an accepting landfill without the involvement of the NDEP.
- Solid waste with a hazardous substance component or that is should be reported to the NDEP as a release, though it will not generate a BCA case if it has not impacted soil or groundwater above reportable triggers.
- Disposal of solid waste that is determined to be hazardous will be followed-up on by the BWM Office of Solid Waste regardless of soil impacts.
- Solid waste on BLM land (“desert dumping”), discovered for instance as an adjacent property, should always be reported to the NDEP.

Abandoned Containers

- The federal definition of "release" contains a clause which includes abandoned or discarded containers. The NDEP has determined that the definition of "release" in its reporting regulations does not similarly include abandoned containers.
- When abandoned or discarded containers are discovered at a site, particularly through a property transfer assessment, the containers should be examined to determine whether they contain a hazardous substance and whether a release to surrounding soil or other surfaces of land has occurred.
- The reporting trigger to the NDEP for abandoned containers will be based on determinations of the volume of any substance released from the container or the magnitude of impacts to surrounding soil.
- Multiple containers that have been discarded in one location should be treated as a single source for release determinations.
- Containers should still be properly disposed of according to whether they contain hazardous or non-hazardous wastes regardless of whether a release has occurred.
- Abandoned or discarded containers on BLM land ("desert dumping") should always be reported to the NDEP.

Underground Storage Tanks

- The release reporting regulations require that a confirmed release from an underground storage tank is reported to the NDEP release hotline. Suspected releases should be brought up with to the appropriate UST inspector.
- If soil or groundwater contamination is found at a site in the vicinity of an underground storage tank, this will constitute a suspected released.
- Efforts need to be taken either through a system check or site check to confirm that the environmental contamination is a result of a release from the underground storage tank.
- When conducting a site check investigation, the owner, operator, or CEM must consider the nature of the stored substance, the cause for suspicion, the type of backfill, the depth of groundwater, and other factors for identifying the presence and source of contamination.
- Once a release from a UST is confirmed, all further investigation into the nature and extent of the release is eligible for reimbursement from the Petroleum Fund for registered tanks and statutorily included tanks.
- Confirmed releases from USTs are reportable regardless of the volume or concentration of impacted soil.

Reportable Triggers

- For discovery events, the two most common triggers will be the 3 cubic yards of soil or the discovery of the hazardous substance in or on the groundwater.
- The reporting of discovery events may still be triggered by estimation of the volume of hazardous substance released, particularly for those substances with low reportable quantities such as mercury.
- USTs are reportable at the point that a “confirmed release” has been determined, so the following discussions do not apply.

Screening Levels

- For soil, contamination in excess of 3 cubic yards does not need to be reported if concentrations of hazardous substances do not exceed Region 9 Residential PRGs or 100 mg/kg TPH and do not present a threat to groundwater through migration.
- For groundwater, contamination does not need to be reported if concentrations are less than one half of:
  - Any established MCL,
  - Any other secondary drinking water standard, or
  - Region 9 PRG, if no MCL or drinking water standard is available.
- Screening level concentrations should be compared to the highest concentrations reported for soil and groundwater contamination. Statistical approaches should not be employed for the purposes of determining whether a release is reportable.
- Screening levels will be periodically revised and made available.
- Due to land disposal restrictions, if a release to soil is witnessed, the release needs to be reported if greater than 3 cubic yards are impacted regardless of concentrations (for example, a pinhole spray from a pipeline spreads contamination at low concentrations over a great area).

Background

- The discovery of background concentrations that exceed screening levels should not generate a release report to the NDEP because it does not represent a release.
- CEMs should use their best professional judgment in determining appropriate background concentrations, but the following considerations should be made:
  - Inorganic sampling during an assessment shouldn't be undertaken unless there is reason to suspect that past site use may have resulted in their release or if there is another need to collect the information.
  - If there is no reason to anticipate that past site use has resulted in the release of inorganic contaminants, published ranges of background from USGS or NRCS are probably the best source of background information. Concentrations that fall within these published ranges should not require further action.
  - If there is reason to suspect that past site use has resulted in the release of inorganic contaminants, investigation and sampling should be structured to collect site-specific background samples for comparison to areas of potential release.
- The background concentration for organic contaminants in Nevada is considered to be zero, except in the rare instances of recognized anthropomorphic backgrounds.

Anthropomorphic Background

- Anthropomorphic backgrounds are considered where human activity has resulted in the wide-spread distribution of contaminants such that individual sources are no longer identifiable.
- Only two areas of the state will be considered to have anthropomorphic backgrounds: 1) Carson River Mercury Site and 2) Truckee Meadows Remediation District.
- When doing property assessments in the Carson River Superfund boundary (which includes the flood plains of the Carson River), frameworks have been developed for cleanup and reporting requirements. It is best to contact Superfund Branch staff to discuss the discovery of mercury in this site prior to official reporting. More structured procedures will hopefully be detailed in the published version of these guidelines.
- A framework for project flow and program operation are still being discussed for volatile organic solvent contamination in the groundwater of the Truckee Meadows. Until agreement is reached on rules, all groundwater contamination discovered above screening levels should be reported to the NDEP. More structured procedures will hopefully be detailed in the published version of these guidelines.
- All other possible instances of anthropomorphic background should be handled as though the contamination was from an identifiable off-site source.

Common Lab Contaminants

- Detections that are reported on laboratory results sheets that are more likely a result of laboratory cross-contamination (or some other non-reportable event) than site contamination should not be reported to the NDEP since it does not represent a release involving the facility.
- The following is a list of recognized common laboratory contaminants:
  - Acetone
  - 2-butanone
  - Methylene chloride
  - Toluene
  - Phthalate esters
- Trihalomethane detections should also be examined to determine whether they represent a non-reportable release of residually chlorinated drinking water.

Multiple Releases

- NDEP release reporting and corrective action are based on the response to an individual release and (with some exceptions) is not an exercise in facility-wide assessment and cleanup like the federal Superfund program.
- A report is made to the NDEP only when an individual release exceeds reportable quantities, not when multiple releases are identified that when aggregated would exceed the reportable quantity.
- Multiple releases that each individually exceed reportable quantities can be reported through a single notification and handled under a single case.
- All individual releases that are below reportable quantities should be handled without NDEP oversight.
- Indistinguishably comingled contamination should be considered as a single release for the purpose of making a reporting determination.

Determining Volume

- Laboratory samples give information about the magnitude of contamination at a particular location (particularly for grab samples), it is the CEM's responsibility to make informed decisions about the lateral and vertical extent of contamination when determining whether it is reportable based on the 3 cubic yard trigger.
- For petroleum based substances, visual or olfactory information may be the best means of determining extent.
- For contaminants that are not visible and do not have an odor, the CEM must rely on other information to make volume determinations including sampling density, composite sampling approaches, knowledge of past disposal practices, mobility and persistence properties of the chemical, etc.

CEM RESPONSIBILITIES

Report of Findings

- The CEM has a contractual relationship with the individual who commissions the site assessment or investigation, and the report of findings is to be presented to that individual. Findings are not required to be reported directly to the NDEP.
- If a reportable release has been discovered through a site assessment, the requirement to notify the NDEP must be clearly presented in a written report to the facility owner/operator (NAC 459.9729(1)(d)), even if the assessment was commissioned by a prospective purchaser.
- It is the responsibility of the owner of the facility where the release is located to make notification to the NDEP. It is not the responsibility of the CEM, unless the owner designates the CEM to make notification.
- The CEM has no liability for failure to notify the NDEP of a reportable release if the requirement to do so has been documented in a written report and provided to the owner of the facility.
- If the report of findings has been commissioned by a prospective purchaser, the prospective purchaser is not required to make notification until the land transfer has progressed to the point where the purchaser holds title to the property.

Reporting of Immanent Threats

- The NDEP has recently amended its release reporting regulations by adding a category of releases subject to immediate reporting. This category corresponds to those which present an imminent and substantial hazard to human health, public safety or the environment and require reporting by a CEM directly to the NDEP (NAC 459.9729(1)(e)).
- Immediate reporting by a CEM directly to the NDEP is required for the following types of releases:
  - A release of a CERCLA listed hazardous substance in excess of federal reportable quantities;
  - A release of a hazardous substance directly to surface water; and
  - A release that threatens a vulnerable resource including schools, hospitals, elderly care facilities, etc.; drinking water wellheads; and storm drains.
- A CEM should use his professional judgment to determine whether any other release presents an imminent threat based on knowledge of the release and site conditions.

Timing of Notification

- Because the requirement to make a written report to an owner/operator advising them of a reportable release that has been discovered at their facility must be made within 24 hours, this written report will most likely be a separate document from the Phase II or other site investigation report to accommodate this timeframe.
- The release is “discovered” after all information has been received that would allow a CEM to make a reportable determination. The final information is usually the receipt of laboratory sample results.
- The facility owner/operator has one working day after receipt of the CEM’s written report to make notification to the NDEP.